

Amendments to the Claims

The listing of claims replaces all prior versions or listings of claims.

1. (Previously Presented) A layered video encoding system, comprising:
a base layer encoder for receiving a video signal and outputting a base layer stream; and
an enhancement layer encoder that includes a plurality of discrete cosine transform (DCT) modules and a selection system for selecting only one of the DCT modules for performing DCT computation based on factors including an available level of computing resources, wherein each of the plurality of DCT modules comprises a different precision and wherein the selection is made before the DCT computation is performed.
- 2-3. (Canceled).
4. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on an encoding bit rate.
5. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on a required quality level.
6. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on a decoder capability.

7. (Original) The layered video encoding system of claim 1, wherein the selection system selects one of the DCT modules based on bandwidth availability.

8. (Currently Amended) A computer-readable storage medium storing computer program product including executable instructions ~~program product stored on a recordable medium~~ for encoding a layered video signal, the program product comprising:

means for receiving a video signal and outputting an encoded base layer stream;

and

means for encoding an enhancement layer, wherein the enhancement layer encoding means includes a plurality of discrete cosine transform (DCT) modules and selection means for selecting only one of the DCT modules for performing DCT computation based on at least one of an available level of computing resources, an encoding bit rate, a required quality level, a decoder capability and a bandwidth availability, wherein each of the plurality of DCT modules comprises a different precision and wherein the selection is made before the DCT computation is performed.

9-10. (Canceled).

11. (Previously Presented) A method of encoding a video signal in a layered manner, comprising:

receiving the video signal in a base layer encoding system;

outputting an encoded base layer stream;

receiving data from the base layer encoding system into an enhancement layer encoding system;

providing a plurality discrete cosine transform (DCT) modules in the enhancement layer encoding system, wherein each of the plurality of DCT modules comprises a different precision;

selecting only one of the plurality of DCT modules for performing DCT computation based on at least one of an available level of computing resources, an encoding bit rate, a required quality level, a decoder capability and a bandwidth availability, wherein the selection is made before the DCT computation is performed; and
generating an encoded enhancement layer stream using the selected DCT module.

12. (Previously Presented) A layered video decoding system, comprising:

a base layer decoder for receiving and decoding a base layer video stream; and
an enhancement layer decoder for receiving an enhancement layer video stream and generating a decoded enhanced video output, wherein the enhancement layer decoder includes:

a plurality of inverse discrete cosine transform (IDCT) modules; and
a selection system for selecting one of the IDCT modules based on factors including an available level of computing resources.

13. (Original) The layered video decoding system of claim 12, wherein each of the plurality of IDCT modules comprises a different precision.

14. (Cancelled).

15. (Original) The layered video decoding system of claim 12, wherein the selection system selects one of the IDCT modules based on a preferred bit rate.

16. (Original) The layered video decoding system of claim 12, wherein the selection system selects one of the IDCT modules based on a required quality level.

17. (Original) The layered video decoding system of claim 12, wherein the selection system selects one of the IDCT modules based on a communication bandwidth.

18. (Currently Amended) A computer-readable storage medium storing computer program product including executable instructions ~~program product stored on a recordable medium~~ for decoding a layered video stream, the program product comprising:

means for receiving and decoding a base layer video stream; and

means for receiving an enhancement layer video stream and generating a decoded enhanced video output, including:

a plurality of inverse discrete cosine transform (IDCT) modules; and

means for selecting one of the IDCT modules based on at least one of an available level of computing resources, an encoding bit rate, a required quality level, a decoder capability and a bandwidth availability.

19. (Original) The program product of claim 18, wherein each of the plurality of IDCT modules comprises a different precision.
20. (Cancelled).
21. (Previously Presented) A method of decoding a layered video stream, comprising:
receiving an encoded base layer stream into a base layer decoder;
decoding the encoded base layer stream and generating a decoded base layer stream;
providing an enhancement layer decoder having a plurality of inverse discrete cosine transform (IDCT) modules;
receiving an encoded enhancement layer stream into the enhancement layer decoder;
selecting one of the plurality of IDCT modules based on at least one of an available level of computing resources, an encoding bit rate, a required quality level, a decoder capability and a bandwidth availability; and
decoding the encoded enhancement layer using the selected IDCT module.